



**SACRAMENTO COUNTY
CORONER**

Final Case Summary

On 06/19/2017, the Sacramento County Coroner's Office received a report of the decedent's death from Folsom Prison. As required by Government Code, Section 27491, an inquiry was made into the death. The decedent was removed to this office where an examination was performed by Kenny Su, M.D.. The cause of death was determined to be:

Hanging

Other Significant Conditions: History of suicidal attempts.

The decedent was found hanging in his secured prison cell by prison personnel during a scheduled body count. A scene investigation was conducted and noted no evidence of suspicious circumstances. No suicide note was found inside the cell. The decedent had history of suicidal attempts and recent suicidal ideations.

Based on the circumstances and cause of death, the manner will be listed as Suicide.



County of Sacramento

Department of Coroner
4800 Broadway, Suite 100
Sacramento, CA 95820-1530

Kimberly D. Gin
Coroner

☒ Autopsy

☐ External Examination

NAME: MARTINEZ, HECTOR

CASE NO. 17-03351

POSTMORTEM DATE: 06/21/17

TIME: 10:35

INVESTIGATOR: Zhanna Khabatyuk

AUTOPSY FINDINGS:

- I. Injury and ligature marks:
 - A. Ligature marks partially encircling the neck
- II. No evidence of obvious trauma or blunt force injury besides ligature marks
- III. Toxicology is positive for antidepressants including sertraline and mirtazapine.

CAUSE OF DEATH: Hanging

OTHER CONDITIONS CONTRIBUTING BUT NOT RELATED TO THE IMMEDIATE CAUSE OF DEATH: History of suicidal attempts

A handwritten signature in cursive script, reading "Keng Su".

Keng-Chih Su, M.D.
Forensic Pathologist/Neuropathologist
August 11, 2017

WITNESSES:

None.

IDENTIFICATION:

The body is identified by a Sacramento County Coroner's ID tag attached to the left great toe, labeled with the decedent's listed name and case number.

EVIDENCE OF MEDICAL INTERVENTION:

The following are present, and are in proper position: Defibrillator pads on the chest. There has not been organ procurement.

CLOTHING:

None.

EVIDENCE OF EXTERNAL TRAUMATIC INJURY AND ASSOCIATED INTERNAL TRAUMATIC INJURY:

All wound measurements are taken with the body in anatomic position unless otherwise stated.

Injury and ligature marks:

- A. Ligature marks partially encircling the neck, 1/4 to 3/8 inch in width.
- B. No evidence of obvious trauma or blunt force injury besides ligature marks.

EXTERNAL EXAMINATION:

Injuries are described previously. The body is identified by toe tags and is that of an unembalmed refrigerated, adult male who appears about the reported age of 35 years. The body weighs 154 pounds, measures 65 inches, and is extremely obese (Body Mass Index/BMI= 25.6; Obesity= BMI of 30 or greater). Wrist scars are absent. Tattoo is present including: Symbol of dog at the left neck, figure of a scorpion at the left hand, letters of "MARTINEZ" at the back, and claw marks at the right lateral lower leg. Rigor mortis is present. Livor mortis is present and fixed at the posterior.

The head is normocephalic and covered by brown hair. There is no balding and the hair can be described as 5 inches in length and wavy. Mustache is present. Beard is present. Examination of the eyes reveals irides that appear to be brown in color and sclerae that are unremarkable. There are petechial hemorrhages of the lids. The oronasal passages are unobstructed. Upper and lower teeth are present. Dentures are absent. The neck is unremarkable. There is no chest deformity. There is no increased anterior-posterior diameter. The abdomen is not unusual. The genitalia are those of an adult male. The penis appears circumcised. The external genitalia are without trauma or lesions. The extremities show no edema, joint deformity, abnormal mobility, non-therapeutic punctures or needle tracks.

INTERNAL EXAMINATION

The following observations are limited to findings other than injuries, if described above.

INITIAL INCISION:

The body cavities are entered through the standard coronal incision and the standard Y-shaped incision.

NECK:

Injuries are described previously. The neck organs are removed en bloc with the tongue. No lesions are present nor is trauma of the gingiva, lips or oral mucosa demonstrated. There is no edema of the larynx. Both hyoid bone and larynx are intact and without fractures. No hemorrhage is present in the adjacent throat organs, investing fascia, strap muscles, thyroid or visceral fascia. There are no prevertebral fascial hemorrhages. The tongue when sectioned shows no trauma.

CHEST/ABDOMINAL CAVITY:

Both pleural cavities contain scanty clear fluid and have no adhesions. The lungs are well-expanded. Soft tissues of the thoracic and abdominal walls are well preserved. The subcutaneous fat of the abdominal wall measures 1 inch. The organs of the abdominal cavity have a normal arrangement and none is absent. There is no fluid collection. The peritoneal cavity is without evidence of peritonitis. There are no adhesions.

SYSTEMIC AND ORGAN REVIEW**MUSCULOSKELETAL SYSTEM:**

No abnormalities of the bony framework or muscles are present other than those noted above.

CARDIOVASCULAR SYSTEM:

The aorta is fairly elastic and of even caliber throughout with vessels distributed normally from it. The thoracic and abdominal aorta has no atherosclerosis, calcification or aneurysms. The major branches of the aorta show no abnormality.

Within the pericardial sac, there is a minimal amount of serous fluid. The heart weighs 360 grams. It has a normal configuration. The right ventricle is 0.4 cm thick, the left ventricle is 1.6 cm thick, and the septum is 1.6 cm thick. The chambers are normally developed and are without mural thrombosis. The valves are thin, leafy and competent. The circumference of the valve rings are: Tricuspid valve 14 cm, pulmonic valve 6.5 cm, aortic valve 6 cm, and mitral valve 11 cm. There is no endocardial discoloration. There is no abnormality of the apices of the papillary musculature. There are no defects of the septum. The great vessels enter and leave in a normal fashion. The ductus arteriosus is obliterated. The coronary ostia are widely patent. There is a normal pattern of coronary artery distribution. There is no coronary atherosclerosis and no narrowing of the major coronary arteries. The blood within the heart and large blood vessels is liquid.

RESPIRATORY SYSTEM:

Scant secretions are found in the upper and lower bronchial passages. The mucosa is intact and pale. The lungs are unremarkable and there is dependent congestion. The left lung weighs 800 grams. The right lung weighs 910 grams. The visceral pleura are smooth and intact. The parenchyma is moderately congested. The pulmonary vasculature is without thromboembolism.

GASTROINTESTINAL SYSTEM:

The esophagus is intact throughout. The stomach is not distended. It contains about 20 cc of pink fluid. The mucosa shows unremarkable. Portions of tablets and capsules are not seen in the stomach. The small intestine and colon are opened along the anti-mesenteric border and no mucosal lesions are present with soft green/brown stool. The pancreas occupies a normal position. There is no trauma. The parenchyma is lobular and firm. The pancreatic ducts are not ectatic and there is no parenchymal calcification.

HEPATOBIILIARY SYSTEM:

The liver weighs 1760 grams, is of average size and is red-brown. The capsule is intact and the consistency of the parenchyma is soft. The cut surface is smooth. There is a normal lobular arrangement. The gallbladder is present. The wall is thin and pliable. It contains about 40 cc of bile and no calculi. There is no obstruction or dilation of the extrahepatic ducts. The periportal lymph nodes are not enlarged.

URINARY SYSTEM:

The left kidney weighs 160 grams. The right kidney weighs 120 grams. The kidneys are normally situated and the capsules strip easily revealing a surface that is tan-red and smooth. The corticomedullary demarcation is preserved. The pyramids are not remarkable. The peri-

pelvic fat is not increased. The ureters are without dilation or obstruction and pursue their normal course. The urinary bladder is distended. It contains about 325 cc of clear urine.

GENITAL SYSTEM:

The prostate is without enlargement or nodularity. Both testes are in the scrotum and are unremarkable and without trauma.

HEMOLYMPHATIC SYSTEM:

The spleen weighs 220 grams and is of average size. The capsule is intact. The parenchyma is dark red. There is no increased follicular pattern. Lymph nodes throughout the body are small and inconspicuous. The bone is unremarkable. The bone marrow of the rib is unremarkable.

ENDOCRINE SYSTEM:

The thyroid is unremarkable. The parathyroid glands are not identified. The adrenals are unremarkable. The thymus is not identified. The pituitary gland is of normal size.

SPECIAL SENSES:

The eyes are not dissected. The middle and inner ear are not dissected.

HEAD AND CENTRAL NERVOUS SYSTEM:

There is no subcutaneous or subgaleal hemorrhage of the scalp. The external periosteum and dura mater are stripped showing no fracture of the calvarium and base of the skull. There are no tears of the dura mater. There is no epidural, subdural or subarachnoid hemorrhage.

The brain weighs 1390 grams. The leptomeninges are thin and transparent. A normal convolutionary pattern is observed. Coronal sectioning demonstrates a uniformity of cortical gray thickness. The cerebral hemispheres are symmetrical. There is no softening, discoloration, or hemorrhage of the white matter. The basal ganglia are intact. Anatomic landmarks are preserved. Cerebral contusions are not present. The ventricular system has a normal appearance without dilation or distortion. The pons, medulla and cerebellum are unremarkable. There is no evidence of uncal or cerebral herniation. Vessels at the base of the brain have a normal pattern of distribution. There are no aneurysms. Cranial nerves are intact, symmetrical and normal in size, location and course. The cerebral arteries are without arteriosclerosis.

SPINAL CORD:

The superior portion of the cervical spinal cord is examined through the foramen magnum and is unremarkable.

HISTOLOGIC SECTIONS:

Representative sections of various organs are preserved in one storage jar in 10% formalin. No sections are submitted for slides.

TOXICOLOGY:

Femoral blood, heart blood, liver tissue, bile, stomach contents, urine, and vitreous humor have been obtained.

SPECIAL PROCEDURES:

Blood is obtained for DNA.

PHOTOGRAPHY:

Photographs have been taken prior to and during the course of the autopsy.

DIAGRAMS:

Two diagrams were used during the performance of the autopsy. The diagrams are not intended to be a facsimile and are not drawn to scale.

RADIOLOGY:

None.

EVIDENCE:

One white rope consisted of pieces of bed-sheets is collected from a bag beside body.

**NMS Labs**

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Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

CONFIDENTIAL*Dr. SU***Toxicology Report****Report Issued** 07/11/2017 16:04**To: 117C**Sacramento County Coroner
Attn: Kim Gin/Pathology
4800 Broadway, Suite 100
Sacramento, CA 95820**Patient Name** MARTINEZ, HECTOR
Patient ID 17-03351
Chain 17198119
Age 35 Y **DOB** 03/28/1982
Gender Male
Workorder 17198119

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Positive Findings:

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>Matrix Source</u>
Desmethylnortazapine	Positive	ng/mL	001 - Femoral Blood
Sertraline	140	ng/mL	001 - Femoral Blood
Desmethylnortazapine	1200	ng/mL	001 - Femoral Blood
Nortazapine	16	ng/mL	001 - Femoral Blood

See Detailed Findings section for additional information

Testing Requested:

<u>Analysis Code</u>	<u>Description</u>
8092B	Postmortem, Expert, Blood (Forensic)

Specimens Received:

<u>ID</u>	<u>Tube/Container</u>	<u>Volume/ Mass</u>	<u>Collection Date/Time</u>	<u>Matrix Source</u>	<u>Miscellaneous Information</u>
001	Gray Top Tube	10.3 mL	06/21/2017 10:35	Femoral Blood	

All sample volumes/weights are approximations.

Specimens received on 06/27/2017.

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Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Desmethylmirtazapine	Positive	ng/mL		001 - Femoral Blood	GC/MS
Sertraline	140	ng/mL	10	001 - Femoral Blood	LC-MS/MS
Desmethylsertraline	1200	ng/mL	20	001 - Femoral Blood	LC-MS/MS
Mirtazapine	16	ng/mL	10	001 - Femoral Blood	GC

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Desmethylmirtazapine - Femoral Blood:

The reported qualitative result for this substance was based upon a single analysis only. If confirmation testing is required please contact the laboratory.

2. Desmethylsertraline (Norsertraline; Sertraline Metabolite) - Femoral Blood:

Desmethylsertraline is the principal metabolite of sertraline and has about 10 to 20% of the pharmacologic activity of the parent compound. Fifteen adults taking 200 mg daily sertraline had mean trough serum concentrations of 87 ng/mL desmethylsertraline (range 40 - 189 ng/mL).

In a report of seven postmortem cases in which sertraline was not related to the cause of death, desmethylsertraline concentrations were 80 - 990 ng/mL in heart blood. A patient survived an acute overdose with a serum concentration of 1700 ng/mL desmethylsertraline. Her symptoms included confusion, agitation, fever and seizures.

3. Mirtazapine (Remeron®) - Femoral Blood:

Mirtazapine has been used clinically as an antidepressant since 1994. It is available as tablets containing 15, 30 and 45 mg. Daily doses for adults are usually in the range of 15 to 45 mg.

The oral bioavailability of the drug is approximately 50%. It is well distributed and metabolized to several weakly active products, including desmethylmirtazapine.

Steady-state plasma levels following a daily regimen:

15 mg/day: 27 - 51 ng/mL (peak); 4.3 - 12 ng/mL (trough)
30 mg/day: 56 - 104 ng/mL (peak); 11 - 25 ng/mL (trough)
45 mg/day: 84 - 142 ng/mL (peak); 17 - 39 ng/mL (trough)
60 mg/day: 117 - 199 ng/mL (peak); 25 - 52 ng/mL (trough)
75 mg/day: 137 - 225 ng/mL (peak); 28 - 64 ng/mL (trough)

In one case involving an apparent overdose with mirtazapine, a postmortem blood concentration of 2700 ng/mL was reported.

4. Sertraline (Zoloft®) - Femoral Blood:

Sertraline is a selective serotonin reuptake inhibitor used in the treatment of depression. The initial adult dosage is 50 mg daily and can be increased to a maximum of 200 mg daily. Sertraline is subject to significant first pass metabolism with desmethylsertraline as the principal metabolite. Overdose with sertraline may cause sleepiness, nausea, tachycardia, and mydriasis.

Fifteen adults taking 200 mg daily sertraline had mean trough serum concentrations of 29 ng/mL (range 9 - 82 ng/mL) sertraline. The blood to plasma ratio for sertraline is approximately 1.2.

In a report of seven postmortem cases in which sertraline was not related to the cause of death, sertraline concentrations were 230 - 460 ng/mL in heart blood. Postmortem blood sertraline concentrations greater than 1,500 ng/mL were considered to be contributory to death in a review of 75 cases. A patient survived an acute overdose with a serum concentration of 2,900 ng/mL sertraline. Her symptoms included confusion, agitation, fever and seizures.

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Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded one (1) year from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.

Workorder 17198119 was electronically
signed on 07/11/2017 15:24 by:

William H. Anderson, Ph.D., F-ABFT
Forensic Toxicologist

Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Acode 52116B - Sertraline and Desmethylsertraline Confirmation, Blood (Forensic) - Femoral Blood

-Analysis by High Performance Liquid Chromatography/
Tandem Mass Spectrometry (LC-MS/MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Desmethylsertraline	20 ng/mL	Sertraline	10 ng/mL

Acode 52303B - Mirtazapine Confirmation, Blood (Forensic) - Femoral Blood

-Analysis by Gas Chromatography (GC) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Mirtazapine	10 ng/mL		

Acode 8092B - Postmortem, Expert, Blood (Forensic) - Femoral Blood

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Benzodiazepines	100 ng/mL	Opiates	20 ng/mL
Buprenorphine / Metabolite	0.50 ng/mL	Oxycodone / Oxymorphone	10 ng/mL
Cannabinoids	10 ng/mL	Salicylates	120 mcg/mL
Cocaine / Metabolites	20 ng/mL		

-Analysis by Gas Chromatography/Mass Spectrometry
(GC/MS) for: Anesthetics, Anticoagulant Agents, Antifungal Agents, Antihypertensive Agents, Anxiolytics
(Benzodiazepine and others), Hypnotics (Barbiturates, Non-Benzodiazepine Hypnotics, and others) and
Non-Steroidal Anti-Inflammatory Agents (excluding Salicylate).

-Analysis by Gas Chromatography/Mass Spectrometry
(GC/MS) for: The following is a general list of compound classes included in the Gas Chromatographic screen.
The detection of any particular compound is concentration-dependent. Please note that not all known compounds
included in each specified class or heading are included. Some specific compounds outside these classes are
also included. For a detailed list of all compounds and reporting limits included in this screen, please contact
NMS Labs.

Amphetamines, Analgesics (opioid and non-opioid), Anorectics, Antiarrhythmics, Anticholinergic Agents,
Anticonvulsant Agents, Antidepressants, Antiemetic Agents, Antihistamines, Antiparkinsonian Agents,
Antipsychotic Agents, Antitussive Agents, Antiviral Agents, Calcium Channel Blocking Agents, Cardiovascular
Agents (non-digitalis), Local Anesthetics Agents, Muscle Relaxants and Stimulants (Amphetamine-like and
others).

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Analysis Summary and Reporting Limits:

-Analysis by Headspace Gas Chromatography (GC) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Acetone	5.0 mg/dL	Isopropanol	5.0 mg/dL
Ethanol	10 mg/dL	Methanol	5.0 mg/dL

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